My NASA Data - Mini Lesson

Tropical Cyclone Counts Create Histogram

Number of Tropical Cyclones at 120 Degrees West between the Equator and 40 Degrees North
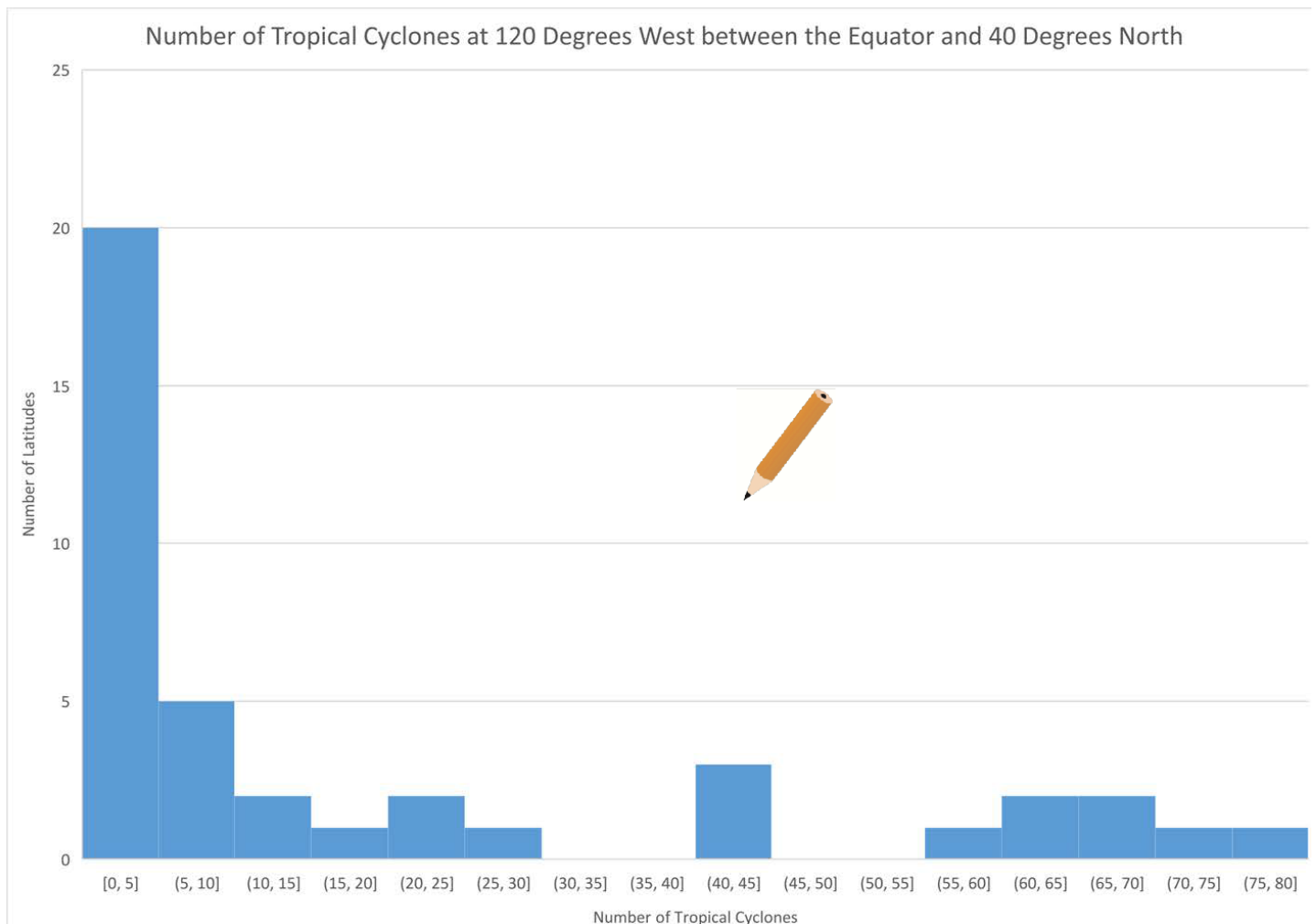
Mini Lesson

A **histogram** is a type of graph which shows variability (or how spread out the data are) within a group. They show numerical data by grouping them in logical ranges called "bins" (also known as "intervals" or "buckets") of equal width. One may use a histogram to answer specific kinds of questions about their data.

- *How variable are the _____ data ?*
- *What is the range and distribution of _____?*
- *How different are the values of the _____ data?*
- *How similar are the values of the _____ data?*

What do these questions have in common?

Section A: Plan your Histogram

1. Use the data table provided to make a frequency table with bins that are 5 units wide.
2. What is the x axis? What is the y axis?
3. How many squares of the graph paper will you use for each bin?
4. How much will each square of the graph paper represent? How many squares will you need in order to graph the tallest bar?
5. What title will you use?

DATASET: Tropical Cyclones
VARIABLE: Number of Tropical Cyclones (1842 - 2018) (dimensionless (count))

LAS 8./Ferret 7.5 NOAA/PMEL
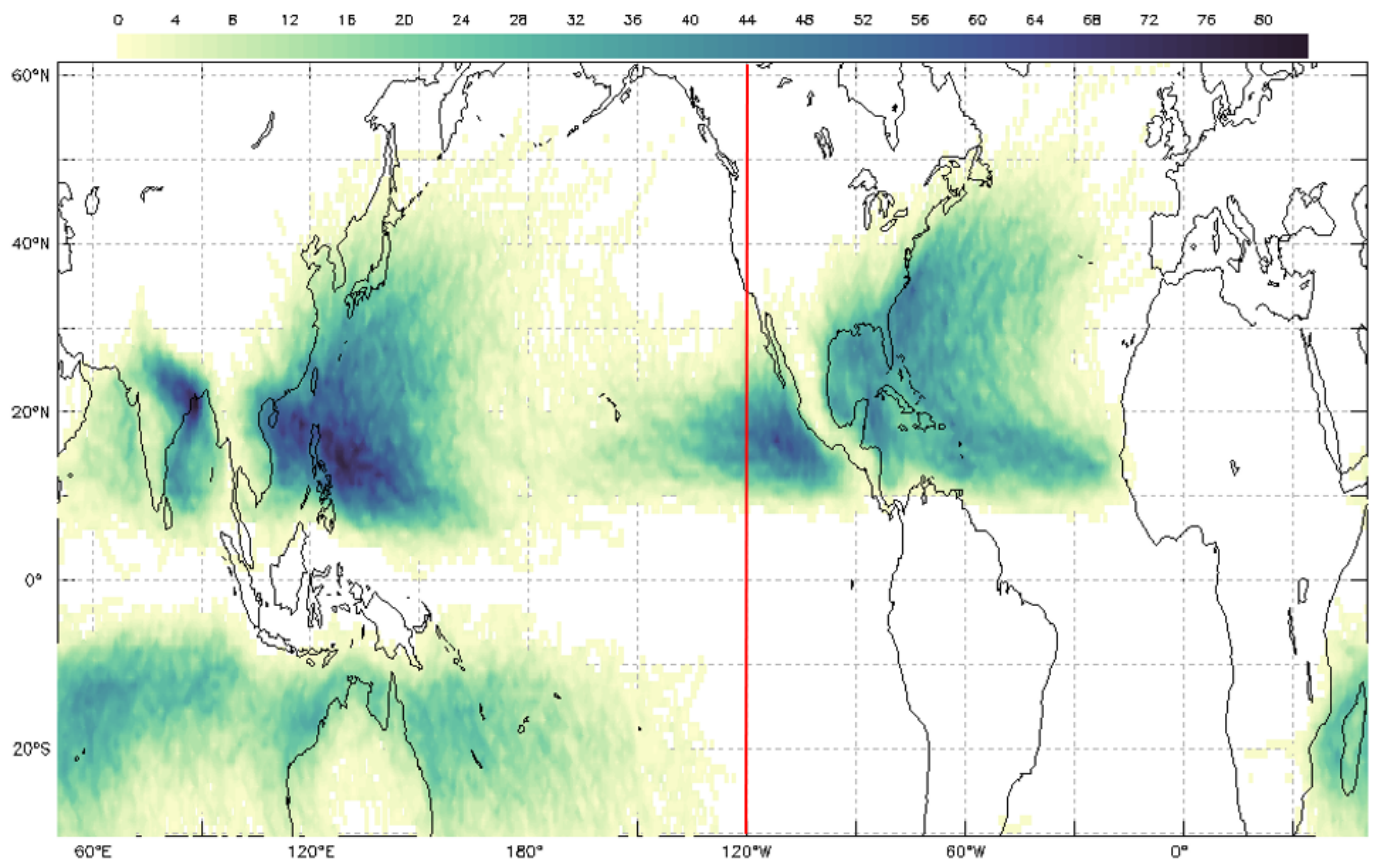
Data Table- Tropical Cyclones at 120° West from the Equator to 40° North

Latitude Degrees North	Number of Tropical Cyclones
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	1
9	7
10	5
11	9

12	22
13	43
14	42
15	61
16	72
17	68
18	79
19	66
20	65
21	56
22	42
23	27
24	20
25	22
26	14
27	10
28	13
29	6
30	6
31	4
32	1
33	0
34	0
35	0
36	0
37	0
38	0
39	0
40	0

Section B: Create the Histogram Using the Answers to the Planning Questions

1. Draw the axis using graph paper.
2. Label the axis.
3. Add the title.
4. Using the frequency table, draw and shade the bars for the histogram.

This is part of the Tropical Cyclone Counts Graphing Bundle and can be completed independently or with the other activities in the bundle.

Teachers who are interested in receiving the answer key, please contact MND from your school email address at larc-mynasadata@mail.nasa.gov.

Earth System Data Explorer

- Number of Tropical Cyclones (1842-2017)